COR No. 0954-60
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14 October 1960

MEMORANDUM FOR: Chief, TISD

THROUGH: Chief, TISD/TI

SUBJECT: Evaluation of Special Processing Techniques for Nadir Determination on the [redacted]

25X1A

A. General Comments

1. The undersigned arrived at the processing plant on 7 October 1960 at 1300 and remained until 1700.

2. The problem of preparing a duplicate copy of M9069 for automatic tracking on the [redacted] was discussed with the following representatives of the processing plant: [redacted]

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3. In all, approximately two dozen samples of Pass 14 with various densities and emulsions were prepared for my inspection.

4. It was pointed out that we probably would not desire a complete new copy of M9069 but were interested in determining what was necessary for improving any future material.

B. Specific Comments

1. Any density increase over the 1.0 density normally supplied to us increased the possibility of the [redacted] tracking the interface of the starboard horizon. A density of 3.5 gave a fairly sharp but contrasting interface.

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2. Any density increase over approximately 1.0 to 1.5 probably precludes any possibility of the [redacted] automatically tracking the port horizon.

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3. As the density is increased, there appears to be a shift of the apparent horizon. If correct, this would be a detrimental effect.

4. Considerable difficulty was encountered with the quality of the fiducial points. One fiducial would not be reproduced or would be poorly reproduced under higher contrast conditions.

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5. Since the final analysis of the horizon enhancement depends upon the [redacted] several of the samples are being sent by courier for further analysis. 25X1A

C. Conclusions

1. After a preliminary examination of the material, there appeared to be no solution for enhancing both horizons simultaneously. However, a final decision cannot be reached until further study is made on the [redacted] and any effect of a shift in the apparent horizon is studied. 25X1A

2. It was generally felt by all present that any enhancement possibilities are limited and any real improvement must take place in the original negative.

3. Any decision reached on enhancement of M9009 will not necessarily apply to any future missions and each mission must be treated separately until further experience is gained.

4. A coordinated effort should be made to see what progress the contractors are making in improving the quality of the horizon and fiducial images.

/S/

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